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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/701,471

11/06/2003

Hirohito Inoue

2003-1507A

8583

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09/15/2006

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EXAMINER

VELEZ, ROBERTO

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/701,471	Applicant(s) INOUE, HIROHITO	
	Examiner Roberto Velez	Art Unit 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/06/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/29/2006 has been entered.

Response to Arguments

2. Applicant's arguments, see Remarks (Page 5, Lines 28-29), filed 08/19/2006, with respect to the rejection(s) of claim(s) 1-4 under 103(a) have been fully considered and are persuasive. However, upon further consideration, a new ground(s) of rejection is made in view of *Kim et al. (US Pat. 6,229,118)*.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Okabe (US Pat. 6,459,285)* in view of *Kim et al. (US Pat. 6,229,118)*.

Regarding claim 1, *Okabe* shows (Fig. 1) a burn-in apparatus for screening plurality of semiconductor devices comprising: a plurality of training

operation wafers [16] each formed of a semiconductor to which a conductive film is applied on a face thereof, or a material having conductive properties [21]; a cassette [11] having a plurality of slots [13] for housing the plurality of training operation wafers [16], and a plurality of electrodes [55] for contacting the plurality of training operation wafers when the plurality of training operation wafers [16] are inserted into the plurality of slots [13]; a vacuum pincette [53]; voltage application means [14, 15] for applying a voltage between each electrode [55] of the cassette [11]; and state detection means [14] for detecting contact between the pincette [53] and each wafer [16] by detecting a potential of each electrode [55] of the cassette [11] or a current flowing to the electrode [55].

Okabe fails to disclose wherein the vacuum pincette has a conductive suction part for operating on the plurality of training operation wafers; and wherein a voltage is applied between the conductive suction part of the vacuum pincette. However, **Kim et al.** shows (Fig. 3) a vacuum pincette [200] having a conductive suction part [210, 212, 214, 300] for operating on the plurality of training operation wafers (Column 6, Lines 31-35); and wherein a voltage is applied (using controller [330]) between the conductive suction part [210, 212, 214, 300] of the vacuum pincette [200].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of **Kim et al.** into the device of **Okabe** by replacing the vacuum pincette of **Okabe** with the vacuum pincette of

Kim et al. In the manner set forth above for at least the purpose of (Column 4, Lines 32-39) securing the wafer to the vacuum pincette.

Regarding claim 5, **Okabe** shows (Fig. 1) a burn-in apparatus for screening plurality of semiconductor devices comprising: a plurality of training operation wafers [16] each formed of a semiconductor to which a conductive film is applied on a face thereof, or a material having conductive properties [21]; a cassette [11] having a plurality of slots [13] for housing the plurality of training operation wafers [16], and a plurality of electrodes [55] for contacting the plurality of training operation wafers when the plurality of training operation wafers [16] are inserted into the plurality of slots [13]; a vacuum pincette [53]; a controller [14, 15] operable to apply a voltage between each electrode [55] of the cassette [11]; and detect contact between the vacuum pincette [53] and each training operation wafer [16] by detecting a potential of each electrode [55] of the cassette [11] or a current flowing to the electrode [55].

Okabe fails to disclose wherein the vacuum pincette has a conductive suction part for operating on the plurality of training operation wafers; and wherein a voltage is applied between the conductive suction part of the vacuum pincette. However, **Kim et al.** shows (Fig. 3) a vacuum pincette [200] having a conductive suction part [210, 212, 214, 300] for operating on the plurality of training operation wafers (Column 6, Lines 31-35); and wherein a voltage is applied (using controller [330]) between the conductive suction part [210, 212, 214, 300] of the vacuum pincette [200].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of *Kim et al.* into the device of *Okabe* by replacing the vacuum pincette of *Okabe* with the vacuum pincette of *Kim et al.*. In the manner set forth above for at least the purpose of (Column 4, Lines 32-39) securing the wafer to the vacuum pincette.

5. Claims 2-3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Okabe (US Pat. 6,459,285)* and *Kim et al. (US Pat. 6,229,118)* as applied to claims 1 and 5 above, and further in view of *Zohni et al. (US Pat. 6,540,467)*.

Regarding claims 2 and 6, combination of *Okabe* and *Kim et al.* disclose everything claimed above in claims 1 and 5, with the exception of a cassette having display means for specifying a training operation wafer to be operated on based on operation specification information. However, *Zohni et al.* discloses (Column 9, Lines 15-29), LED lights [1046] as display means for specifying the situation concerning the functions being done in the cassette.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of *Zohni et al.* into the device of the combination of *Okabe* and *Kim et al.* by including a cassette having display means for specifying a training operation wafer to be operated based on operation specification information. In the manner set forth above for at least the purpose of indicating if the functionality of the cassette is good or bad concerning the wafer that the operator wants to test.

Regarding claim 3 and 7, combination of **Okabe** and **Kim et al.** and **Zohni et al.** disclose everything claimed above in claims 1-2 and 5-6; in addition, **Okabe** discloses (Column 7, Lines 33-42) decision means [14] for deciding whether an erroneous operation occurs based on a result of detection by the state detection means and the operation specification information.

6. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Okabe (US Pat. 6,459,285)** and **Kim et al. (US Pat. 6,229,118)** and **Zohni et al. (US Pat. 6,540,467)** as applied to claims 1-3 and 5-7 above, and further in view of **Tanaka et al. (US Pat. 5,777,485)**.

Combination of **Okabe** and **Kim et al.** and **Zohni et al.** fail to disclose a decision means having output means for generating sound when the decision means decides the erroneous operation has occurred. However, **Tanaka et al.** discloses decision means [4] having output means for generating sound (Column 12, Lines 33-37) when the decision means [4] decides the erroneous operation has occurred.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of **Tanaka et al.** into the device of the combination of **Okabe** and **Kim et al.** and **Zohni et al.** by including decision means having output means for generating sound when it decides the presence of erroneous operation. In the manner set forth above for at least the

purpose of generating a warning sound to notify an operator of a possible defect in the system.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rochet et al. (5,929,766) discloses a device for controlling semiconductor wafer transport cassettes. ***Rochet et al.*** discloses (Column 3, Lines 54-62) a cassette having lamps [32] as display means for specifying a wafer to be operated based on operation specification information.

Tokisue et al. (US Pat. 5,258,047) shows (Figures 1-50) a holder device and semiconductor producing apparatus having same.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Velez whose telephone number is 571-272-8597. The examiner can normally be reached on Monday-Friday 8:00am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Ha can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information

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for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AV

Roberto Velez
Patent Examiner

Parekh
PARESH PATEL 09/11/06
PRIMARY EXAMINER